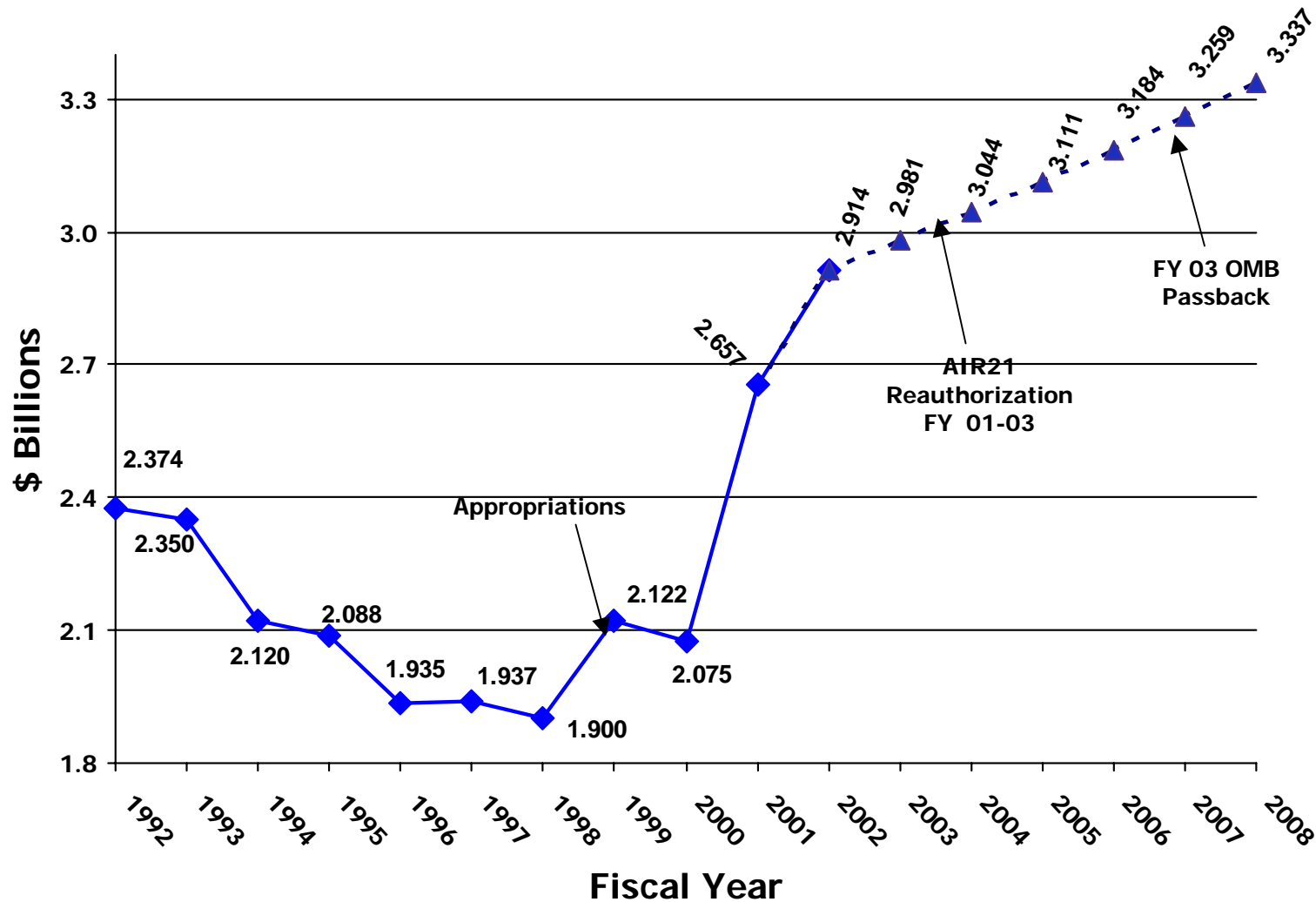


FAA FY 2003 \$2.981B F&E  
Congressional Submission

Briefing Presented to the  
Air Traffic Control Association (ATCA)  
FY 2003 Budget Symposium

**March 12, 2002**

# F&E Appropriations and Out Year Targets



# Comparison of Formats of FY 02 & 03 F&E Budgets

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FY 2002

## ACTIVITY

1. Engineering, Development, Test & Evaluation.
2. Procure. & Modernize ATC Facilities & Equipment
3. Procure & Modernize Non-ATC Facilities & Equipment
4. F&E Mission Support
5. Personnel & Related Costs

FY 2003

## ACTIVITY

1. Improve Aviation Safety
2. Improve the Efficiency of the ATC System
3. Increase the Capacity of the NAS
4. Improve the Reliability of the NAS
5. Improve the Efficiency of Mission Support
6. Personnel Compensation, Benefits, & Travel

# Terminal Business Unit Programs

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- Terminal Automation (STARS)
- Terminal ATC Facilities Replace
- ATCT/TRACON Improve
- Regional Terminal Projects
- Large TRACONs
- Terminal Applied Engineering
- ASR-11
- PCS Moves (Large TRACONs)
- Mode S
- FDIO Phase II
- Terminal Radar Improvements
- ATCBI Replacement
- En Route Radar facilities
- ASDE & ASDE-X
- TDWR
- ASR-9
- AMASS
- ASR WSP
- PRM

**Total \$693.0M**

# Navigation and Landing Program Consolidation

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- Local Area Augmentation System (LAAS) For GPS
- Wide Area Augmentation System (WAAS) For GPS
- VHF Omni-directional Radio Range with Distance Measuring Equipment (VOR/DME)
- instrument landing System (ILS) - Establish
- Approach Lighting System Improvement Program (ALSIP)
- Runway Visual Range (RVR)
- Distance Measuring Equipment (DME) - Sustain
- Non Directional Beacon (NDB) Facilities - Sustain
- Visual NAVAIDS - Establish/Expand
- visual Approach Slope Indicators (VASI) - Replace with PAPI
- Instrument Approach Procedures Automation (IAPA)
- Navigation and Landing Aids - Service Life Extension Program (SLEP)
- LORAN-C - Upgrade/Modernization
- Nationwide Differential GPS (NDGPS)

**Total \$249.8M**

# Major FAA Programs

	Appropriated <u>FY 02</u>	Budget Request <u>FY 03</u>
✈ STARS	\$168.4M	\$140.7M
✈ Terminal Digital Radar (ASR-11)	64.8M	123.4M
☎ Explosive Detection Technology	97.5M	121.5M
☎ Wide Area Augmentation System (WAAS)	82.9M	110.5M
✈ ATCT/TRACON Replace	131.6M	108.6M
☎ Free Flight Phase 2 (FFP2)	69.7M	106.2M
☎ Airport Surface Detection Equipment - X (ASDE-X)		24.4M
90.3M		
☎ Adv. Tech & Oceanic Procedures (ATOP)	84.0M	86.1M
☎ Next Generation VHF A/G Communications (NEXCOM)		35.0M
71.1M		
☎ En Route Automation Modernization (ERAM)	26.2M	70.4M
☎ Local Area Augmentation System (LAAS)	45.5M	55.8M
☎ En Route Communications Gateway	66.7M	51.1M

# Major FAA Programs (Continued)

	<b><u>FY 02</u></b>	<b><u>FY 03</u></b>
 ATC Beacon Interrogator Replacement (ATCBI -6) 47.1M	60.5M	
→ Free Flight Phase 1 (FFP1)	121.3M	39.9M
 Aeronautical Data Link (ADL) Applications	38.1M	33.2M
→ Safe Flight 21	34.0M	29.8M
 AMASS	12.4M	21.7M
→ Integrated Terminal Weather System (ITWS)	18.8M	19.3M
→ Weather and Radar Processor (WARP)	<u>21.6M</u>	<u>13.6M</u>
<b>Total</b>	<b>\$1203.4M</b>	<b>\$1340.3M</b>

# FY 02 & 03 New Starts

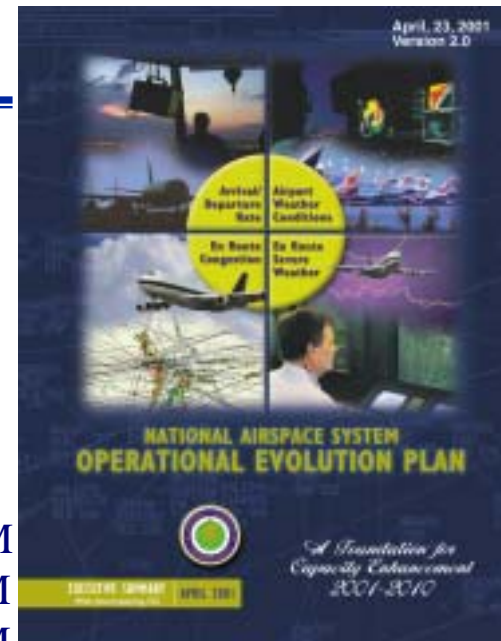
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	<b>FY 02</b>	<b>FY03</b>
	<b><u>Appropriated</u></b>	<b><u>Request</u></b>
→ En Route Automation Modernization (ERAM)	\$ 26.2M	\$ 70.4M
→ Simulator Replacement	\$ 3.4M	\$ 9.8M
→ AIR-21 Cost Sharing Pilot Program	\$ 4.9M	\$ 5.8M
→ Relocate Guam CERAP	\$ 6.4M	\$ 4.9M
→ Corridor Weather Integrated System (CWIS)	\$ 5.0M	\$ 4.1M
→ Safer Skies		\$ 3.0M
→ National Aeronautical Charting Office		\$ 2.0M
→ Med. Intensity Airport Weather System (MIAWS)	\$ 2.2M	\$ 1.0M
→ Comm. Enhancement (UHF Replacement)		\$ 0.5M



# Operational Evolution Plan (OEP)

OEP Programs	FY 02	FY 03
Wide Area Augmentation System (WAAS)	\$82.9M	\$110.5M
Free Flight Phase 2 (FFP2) [CDM,TMA,URET]	69.7M	106.2M
Advanced Technologies & Oceanic Procedures (ATOP)	84.0M	86.1M
Local Area Augmentation System (LAAS)	45.5M	55.8M
Free Flight Phase 1 (FFP1) [CDM,TMA,URET]	121.3M	39.9M
Aeronautical Data Link (ADL) Applications	38.1M	33.2M
Safe Flight 21	34.0M	29.8M
Integrated Terminal Weather System (ITWS)	18.8M	19.3M
Corridor Weather Integrated System (CWIS)	5.0M	4.1M
Potomac TRACON	6.3M	2.7M
GOMEX	4.9M	2.3M
Operational Evolution Plan (OEP)	<u>1.0M</u>	<u>1.0M</u>
<b>Total</b>	<b>\$511.5M</b>	<b>\$490.9M</b>



# Security Programs

## Funding

### INFOSEC

 FY 02 Appropriation \$ 13.6M  
 FY 03 Request \$ 13.4M  
 FY 04 -07 \$ 61.8M

### Facilities Security Risk Management

 FY 02 Appropriation \$ 20.4M  
 FY 03 Request \$ 30.0M  
 FY 04 -07 \$142.0M

### Explosive Detection Systems

 FY 02 Appropriation Plus  
2 Supplemental \$293.5M  
 FY 03 Request \$121.5M  
 FY 04 -07 \$525.0M

### → ETVS

→ FY 02 Appropriation \$17.6M  
→ FY 03 Request \$ 5.0M  
→ FY 04 -07 \$64.5M

### → NAS Recovery Communications (RCOM)

→ FY 02 Appropriation \$ 4.8M  
→ FY 03 Request \$ 9.4M  
→ FY 04 -07 \$46.0M

### → UHF Radio Replacement

→ FY 02 Appropriation 03 New  
Start  
→ FY 03 Request \$ 0.5M  
→ FY 04 -07 \$28.6M

# Security Programs Explosives Detection Technology

## Explosive Detection Systems



**InVision CTX 9000**

Explosive Trace Detection Systems



**L3 eXaminer 6000**



**TDX Egis II**

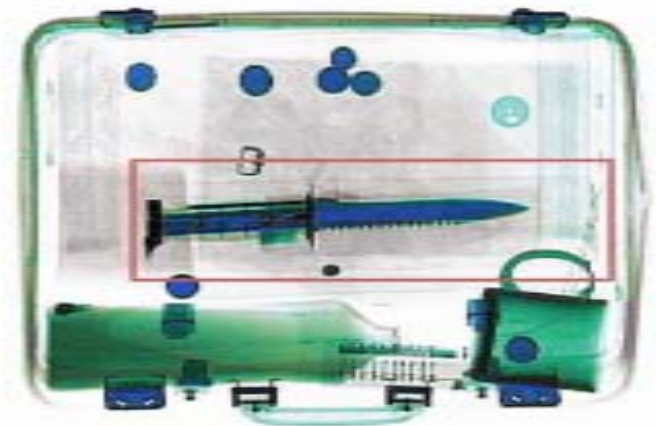


**ITI Itemizer  
Windows**



**Barringer Ionscan B**

Threat Image Projection- Ready X-ray  
(Sample Image)



# Standard Terminal Automation Replacement System (STARS)



## Syracuse Installation



**FY 03 \$ 140.7M**





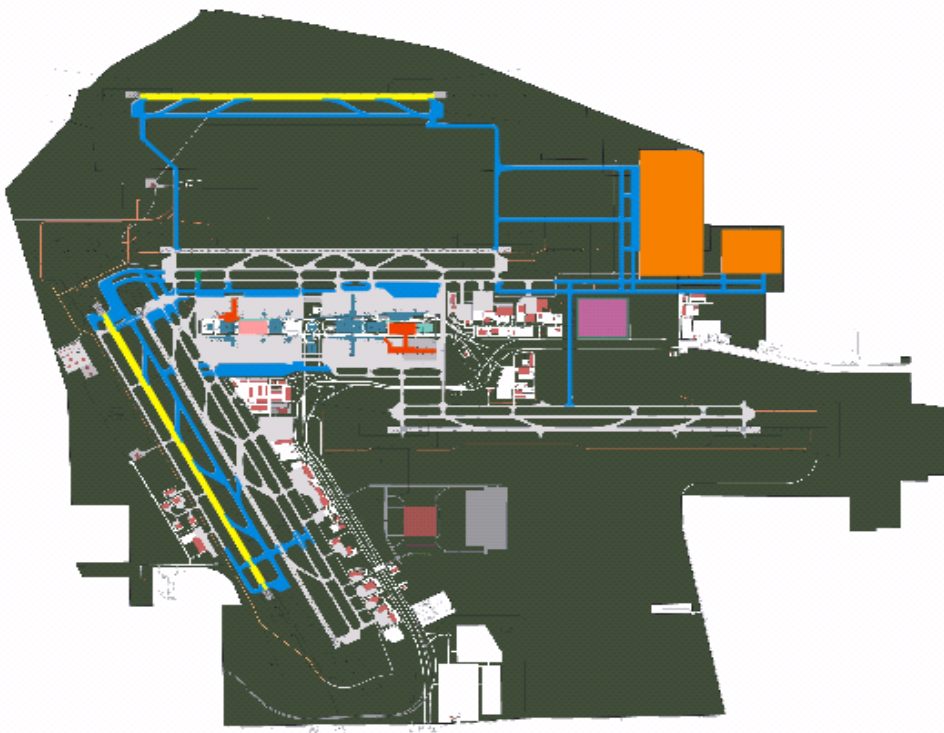
# Terminal Digital Radar (ASR-11)



**FY 03 \$123.4M**

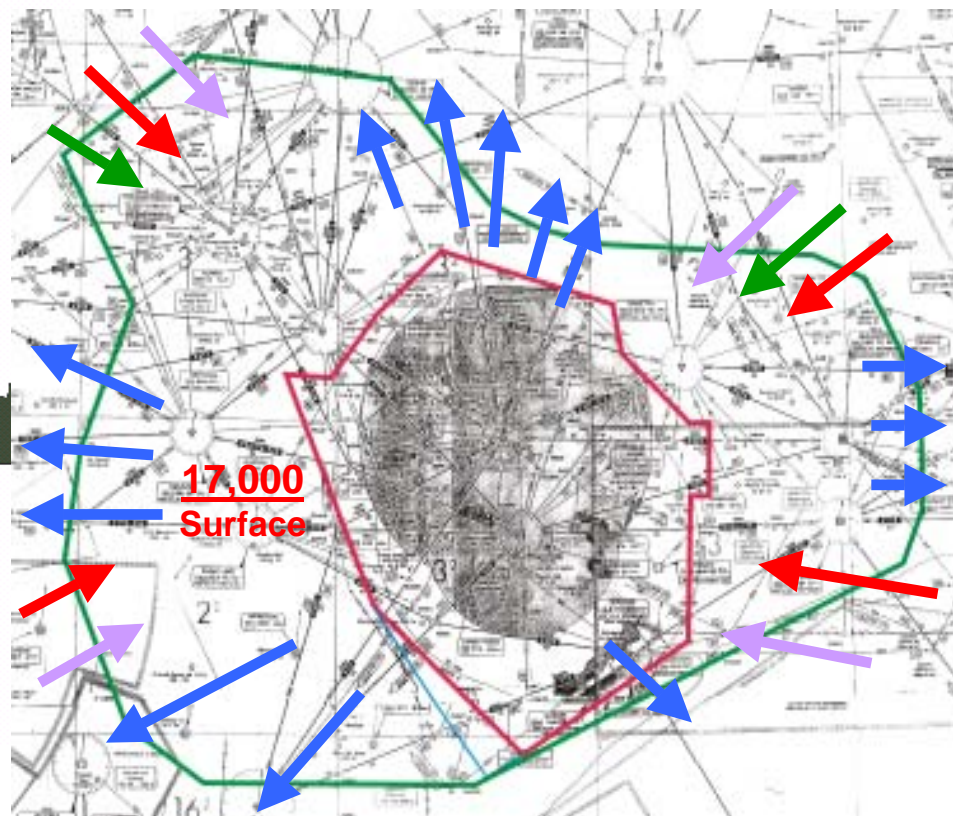
# Houston Area Air Traffic System (HAATS)

George Bush Intercontinental Airport



- New Runway 8L/26R and expanded Runway 15R/33L
- New/expanded taxiways
- New air cargo facilities
- Terminal expansions
- New Rent Car facility

Future Airspace (Notional)



- Arrival routes to IAH
- Arrival routes to HOU
- Turbojet departure routes for all airports
- Demand responsive parallel arrival routes to IAH
- Existing TRACON Boundary
- Future TRACON Boundary

March 12, 2002

**FY 03 \$ 6.0M**

# ATC Beacon Interrogator (ATCBI) - 6



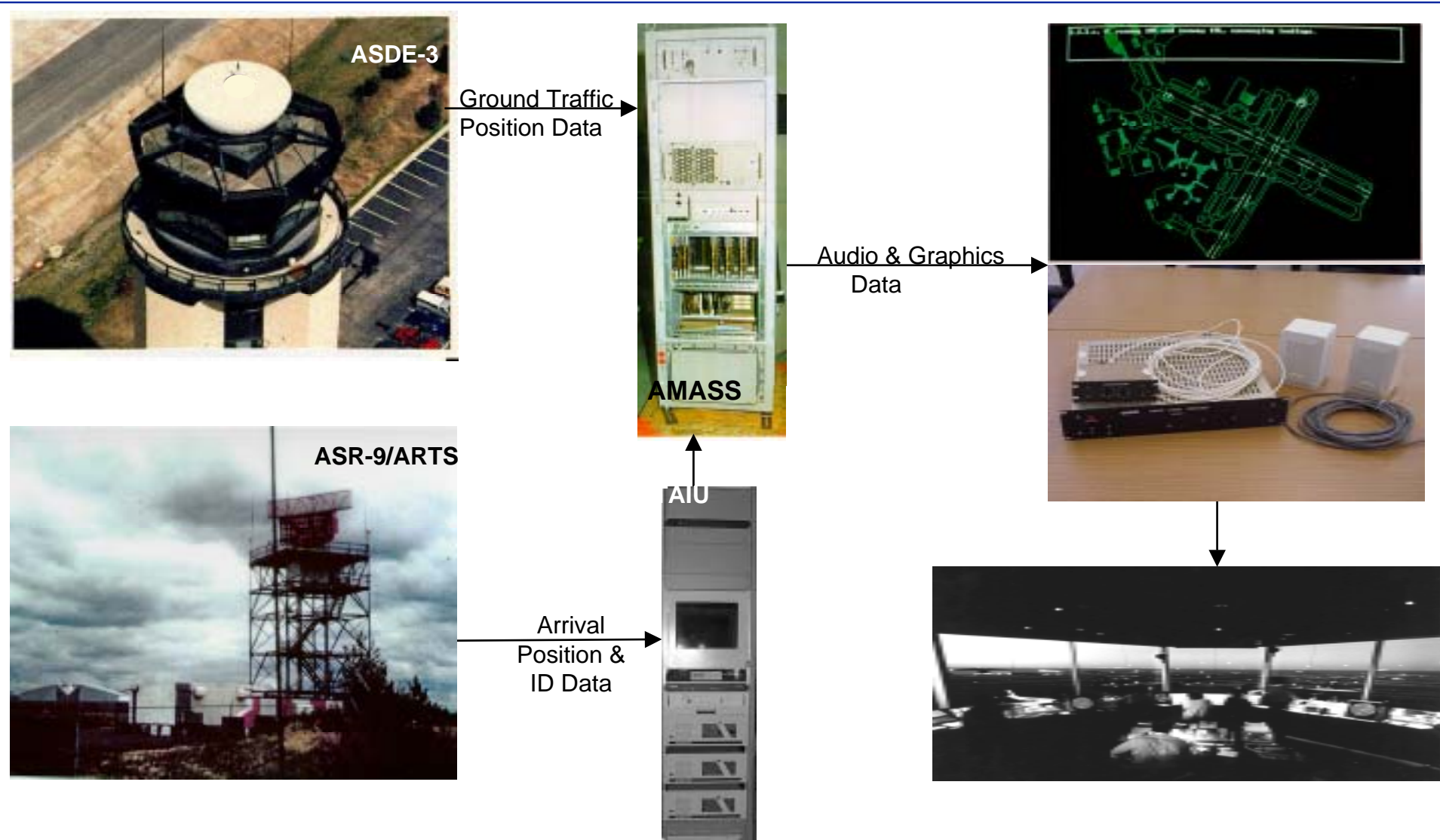
March 12, 2002

**FY 03 \$47.1M**

15

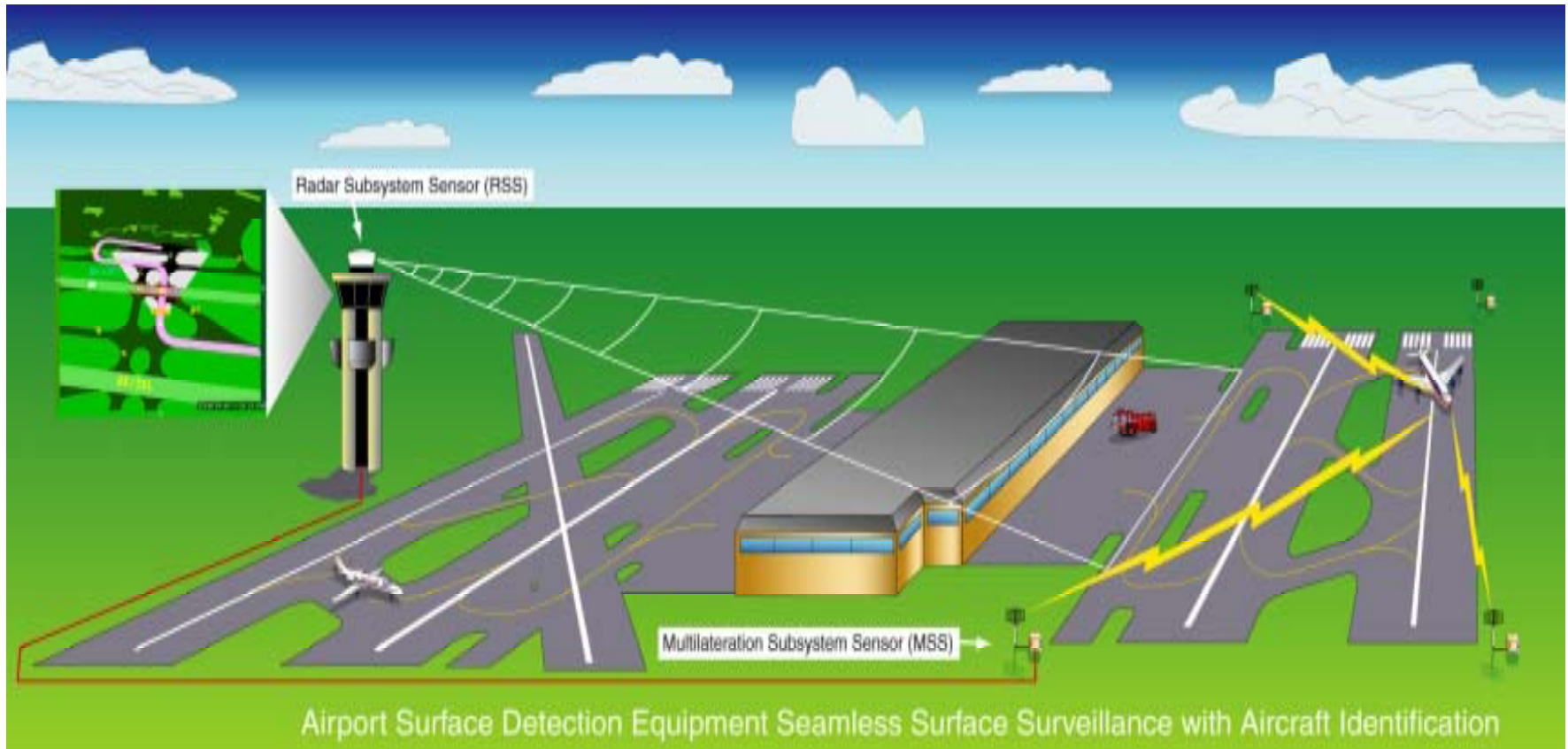


# Airport Movement Area Safety System (AMASS) - System Overview



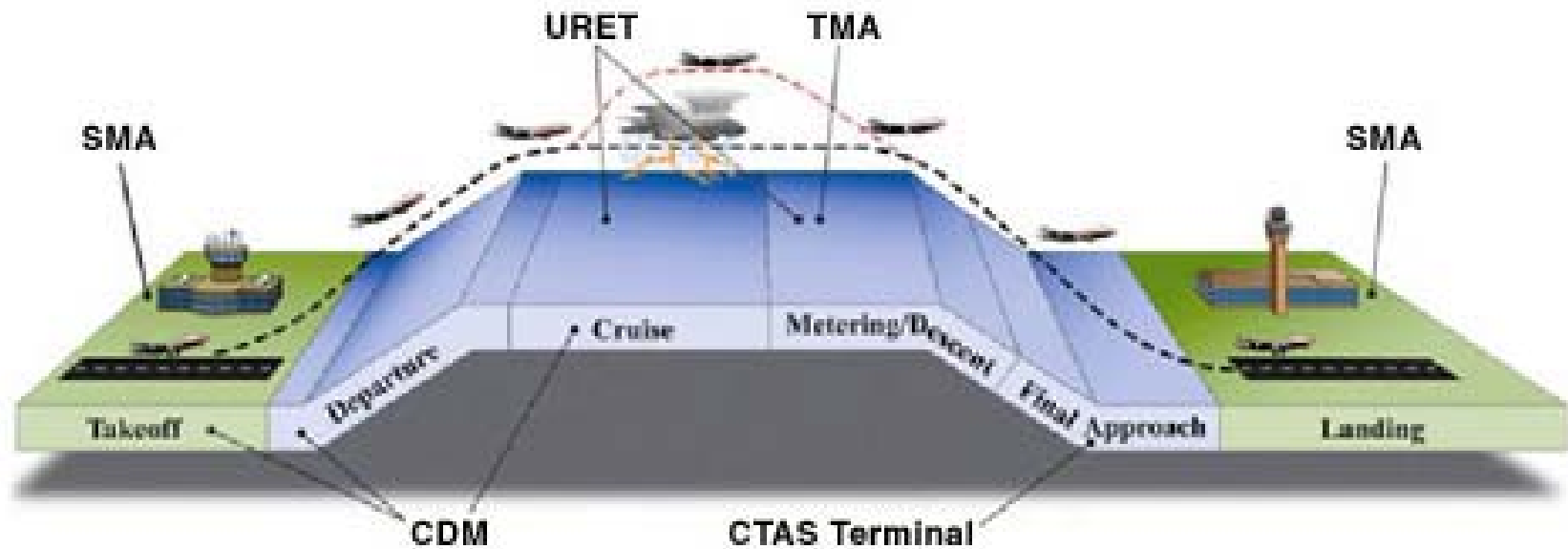


# Airport Surface Detection Equipment - Model X (ASDE-X)



**FY 03 \$90.3M**

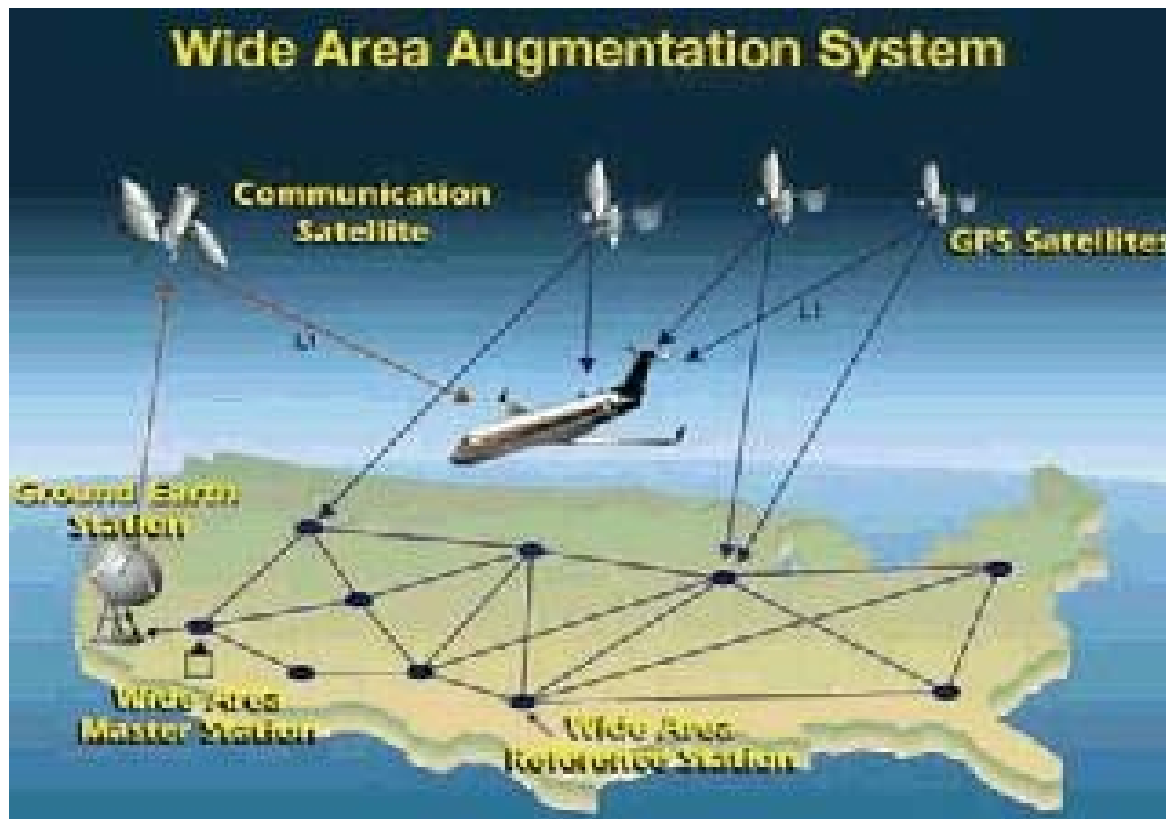
# Free Flight



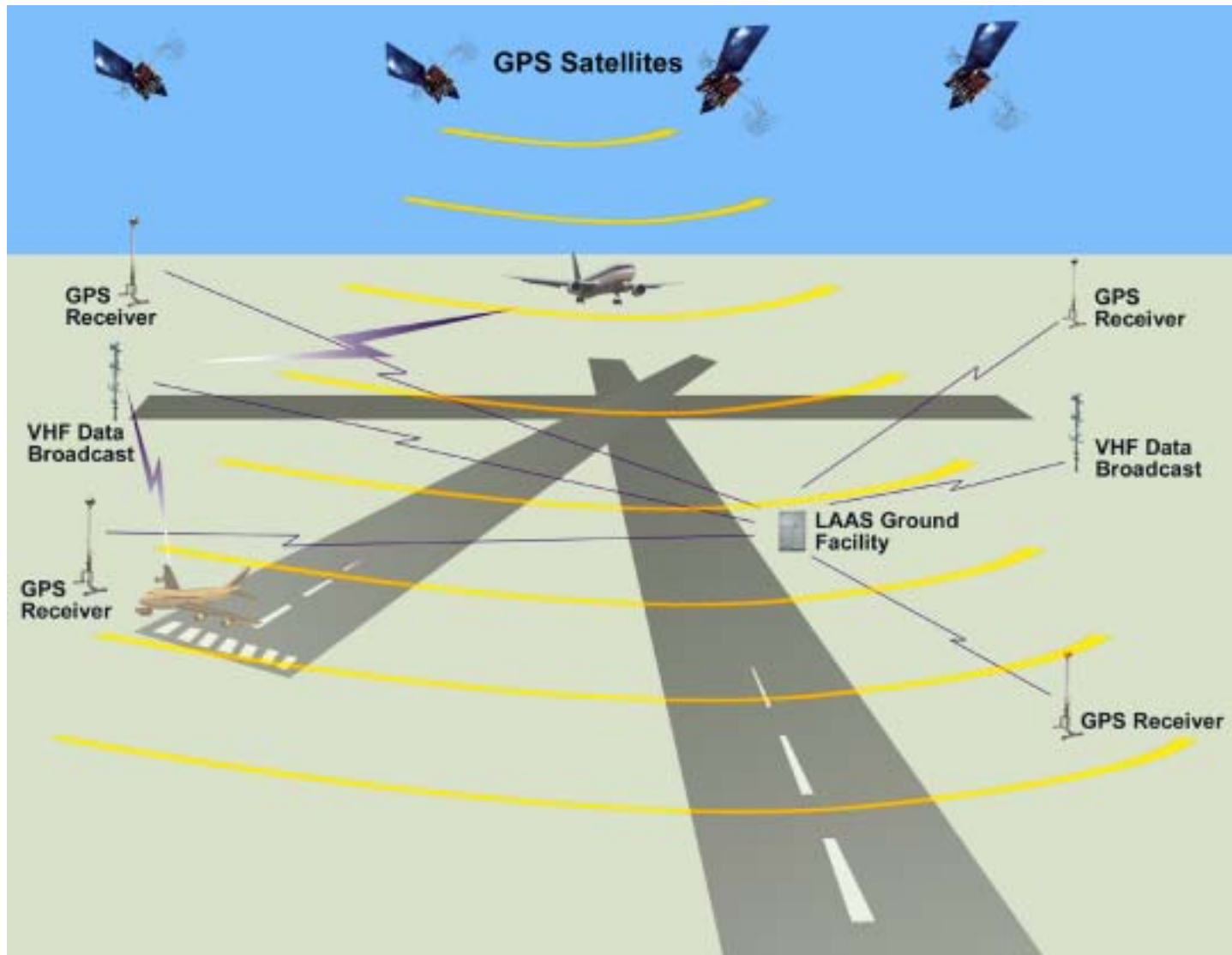
**Free Flight Phase 1      FY 03 \$ 39.9M**

**Free Flight Phase 2      FY 03 \$106.2M**

# Wide Area Augmentation System (WAAS)



# Local Area Augmentation System (LAAS) for GPS



# En Route Automation Systems

## ➤ En Route Communications Gateway (ECG) - PAMRI Replacement

### ➤ Funding

➤ FY 02 Appropriation	\$ 66.7M
➤ FY 03 Request	\$ 51.1M
➤ FY 04 - 07	\$155.0M

### ➤ Schedule

➤ Contract Award	6/01
➤ First Equipment Delivery	12/02
➤ First ORD	6/03
➤ Last ORD	12/05

## ➤ En Route Automation Modernization (eRAM)

### ➤ Funding

☎ FY 02 Appropriation	\$ 26.2M
☎ FY 03 Request	\$ 70.4M
☎ FY 04 - 07	\$745.3M

### ☎ Schedule:

☎ Competitive SIR Issued	3/02
☎ Down Select to 2 Contractors	4/02
☎ Release Final RFO	1/03
☎ Contract Award	3/03
☎ eRAM Fielding Complete	12/08

# Aeronautical Data Link (ADL) Applications

## Funding

 FY 02 Appropriation	\$ 35.7M
 FY 03 Request	\$ 30.6M
 FY 04 - 07	\$148.7M

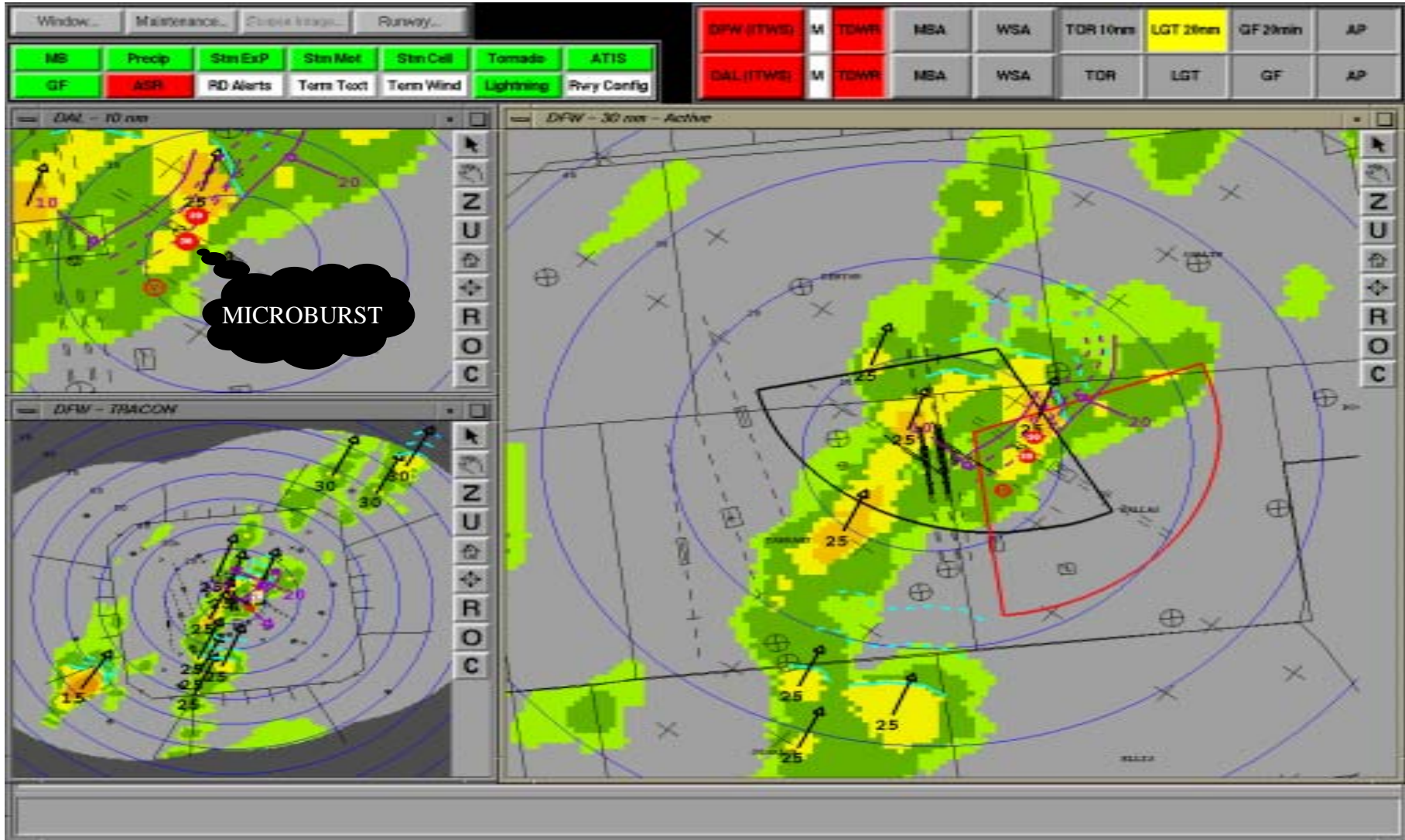
## Schedule

 CPDLC I Site Acceptance (Miami)	
3/02	
 CPDLC I IOC (Using FAATC Aircraft)	6/02
 American Airlines AVIONICS Certification Flight	6/02
 American Airlines Plans 16-22 Aircraft Equipped with AVIONICS	7/02
 CPDLC IA IOC -Key Site (Miami)	12/05
 Complete National Deployment	12/08

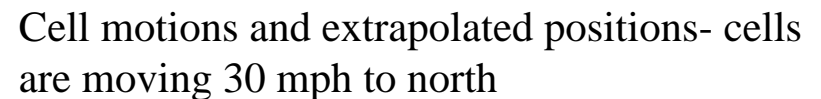


# Integrated Terminal Weather System (ITWS)

## Dallas, TX: Microburst from ITWS Screen



## CIWS Products at 18 Z on 15 June 2001





# Weather and Radar Processor (WARP)



**FY 03 \$13.6M**

# Advanced Technologies and Oceanic Procedures (ATOP)



March 12, 2002

**FY 03 \$85.6M**

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# AIR 21 FAA Airport Cost Sharing Pilot Program

## Funding

 FY 02 Appropriation	\$5.8M
 FY 03 Cost Share	5.8M
 FY 04 - 07	TBD

- FY 02 \$5.8M Will Support the Following Programs
  - Tampa international - Upgrade RW 18L ILS to CAT II/III
  - JFK, La Guardia, & Newark - Feasibility & Environmental Issues Study
  - Olive Branch, MS - Air Traffic Control Tower
  - Chicago - Develop Surface Movement technology based on Multilateration
- Schedule for Second Round of Applications (FY 03 \$5.8M)
  - Phase 1 Applications due to FAA 2/21/02
  - FAA Responses to Sponsors' Phase 1 Applications - 4/22/02
  - Phase 2 Applications due to FAA - 6/3/02
  - FAA Announcement of Second-Round Approvals - 9/3/02